



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

AN ETRUSCAN OPENWORK GRILL IN THE UNIVERSITY MUSEUM, PHILADELPHIA

It is the purpose of this article to call attention to part of a very remarkable collection of Etruscan architectural terra-cotta fragments in the possession of the University Museum in Philadelphia. Among these are some pieces of a grill. This forms the special subject of this paper.

The fragments from which this grill has been restored (Fig. 1) are said to have been found at Orvieto, in excavations conducted by Signor Mancini, an antiquarian of that city. They were procured in Rome in 1896, with the other architectural terra-cottas in the Museum, by Professor A. L. Frothingham.

Orvieto, which by many is believed to be the site of the ancient Etruscan city of Volsinii, rather than the modern Bolsena which retains the name, has in the past forty or fifty years yielded rare treasures to the spade of the archaeologist. Many sumptuously painted tombs have been found there, representing the finest period of Etruscan art. The local museum, and the private collection of Count Faina, which is generously thrown open to scholars on application, are full of objects found in the neighborhood. And why not? for if Orvieto is on the site of the ancient Volsinii, we should expect to find rich spoils buried beneath the ground; for Volsinii was one of the most important, and said to be the wealthiest, of the Twelve Cities of the Etruscan Federation.

It may be well here to review the history of Volsinii, so far as it is known from the ancient writers. There is, indeed, but little to record; it took part in various wars against the Romans, as various references to Livy will prove. These wars began in 392 B.C., when the Romans decisively defeated the Volsinians, and reduced them to a temporary state of submission. But in 311, they united with the other Etruscan cities in a long war against Rome, that lasted three years, and only ended for them in the capture and sack of the city by the enemy in 308. Nevertheless,

they appeared again only fourteen years after this, in 294, arrayed with other allies against Rome. They were badly beaten; but in 280 they were engaged in a last struggle to maintain their

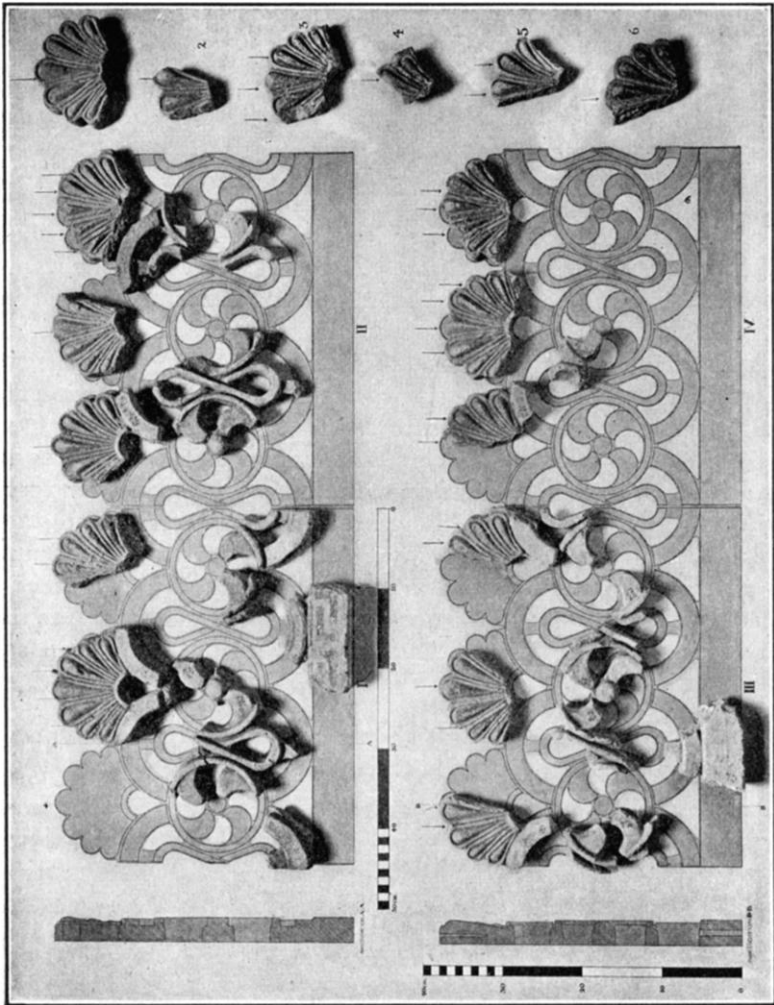


FIGURE 1.—OPENWORK GRILL: PHILADELPHIA.

independence; again they failed, and were obliged to submit to the city on the Tiber. From that time, the city was undoubtedly tributary to Rome; for we hear little more of it in history. In

265-264, the Roman army was employed to subdue the slaves of the Volsinians, who had risen against their masters, and secured the control of the city. It is probable that after 280 the Etruscan city of Volsinii, if it had ever been at Orvieto, was moved to Bolsena, which certainly was the Volsinii of Roman imperial times.

Although these terra-cotta fragments have been in the University Museum ever since 1897, they have remained unpublished. The reasons for this are not hard to seek. In the first place, there was considerable doubt as to the exact place from which many of them came, although there never has been any doubt about the provenance of the grill published here; in the second place, the subject of the use of terra-cotta in Etruscan architecture is one about which little has been written. The authors of this article are collaborating in a careful study of the architectural terra-cottas in the possession of the University Museum in Philadelphia, and the Metropolitan Museum in New York, and they hope to publish their results, of which this is but one small part, in the near future.

As a result of a preliminary examination of the material, it was decided first to take up the grill, as it seemed to offer very attractive problems. The pattern had to be restored; then, the length and height of each slab determined; finally, and most important of all, its position on the building from which it came. There was also the question of its date; and there, as so little has been proven, one man's guess might be as good as another's.

To determine the pattern was easy; the fragments proved sufficiently numerous to afford not the least difficulty in that respect. Moreover, there were several pieces that showed just how the slabs ended. Having determined the pattern, it was also easy to determine the original height, which was found to be 38 cm. It was the length that offered difficulty. Did each slab include two, three, or four palmettes at the top? Here we were helped by published examples of similar grills. One at Copenhagen (Fig. 2)¹, found at Cervetri, the ancient Caere, would allow four palmettes, were it not for an allegorical female figure, which covers the place that would be taken by two of them. Another in Berlin,² also from Caere, is restored with six; but we believe that this restoration is incorrect. One found at Segni,

¹ Published, Arndt, *La Glyptothek Ny-Carlsberg*, pl. 173.

² Published, *ibid.*, text (by Wiegand), fig. 13 in colors, opposite p. 24.

is restored with four (Fig. 3);¹ while a fourth from Civita Castellana, the ancient Falerii, has three palmettes (Fig. 4).²



FIGURE 2.—GRILL FROM CAERE: COPENHAGEN. (After Arndt)

We were helped more, however, by the fragments themselves than by publications of similar objects. A close examination of the palmettes revealed the fact that they were not all alike, nor

¹ Published by R. Delbrueck, *Das Capitolium von Signia*, pl. V, no. 4.

² Published *Not. Scav.* 1888, p. 420, fig. 3. Also publ. in colors, Durm, *Baukunst der Etrusker*.

from the same mould. It is sufficient to say here that we found that they fell into three classes. This seemed to us to point rather significantly to the idea of three palmettes to a slab, and we laid our plans accordingly. In this way, we think we have determined the exact length of each slab to be 44.5 cm.

Having done this, the next question was,—With how many

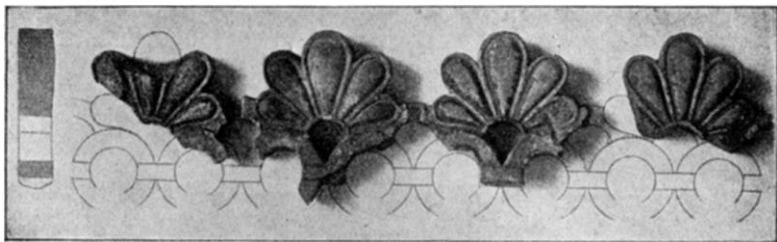


FIGURE 3.—GRILL FROM SIGNIA.

slabs were we dealing? It was obvious, as a glance at Figure 1 shows, that there was more than enough material for one slab. The number of palmettes alone proved that. By great good luck, we found that at least four varieties of clay were represented, if not more. We therefore have assumed four slabs, though, as will be shown later, there may be many more.

Let us now consider the fragments as a whole, and see what

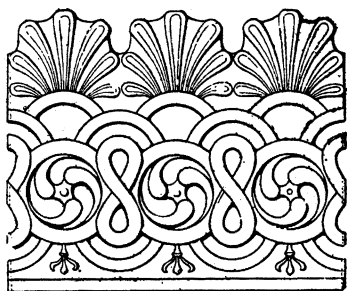


FIGURE 4.—GRILL FROM FALERII.

may be learned from them. Color was used to a great extent, and abundant traces of red, white, and black are found. There is a possibility that blue was also used, but it cannot be proven. The palmettes were very brilliant in their day. They are composed of seven petals, alternate red and black, on a white slip, the central petal in every case being black. In every case but

one (Fig. 1, fragment 6, at the right) the red and black seem to be overcolor laid on a creamy white slip. The petals were enclosed with outer bands of white. The palmettes were connected with the rest of the grill by supports of white, edged with red and black. This edging returns on the reveals as well as the front. This same

scheme seems to apply to all of the grill, except the rims of the wheel-like ornaments, and the figure-8 pattern in the centre. These were probably plain white. There is a possibility that the hubs of the "wheels" were blue; for we know that in the examples in Copenhagen and Berlin the hubs had that color. But the absence here of any trace of color makes it impossible to prove this. The base is of white, with a "maeander" or "wall of Troy" pattern in alternate red and black overcolor on a white slip. It is somewhat thicker than the rest of the grill.

A glance at Section BB, to the left of Slab III (Fig. 1), shows that the base was held to the member on which it rested by strong pins, the pinholes being as long as the base is high. The fragment of base in Slab I has a pinhole on each side where it is broken off (indicated by arrows). It will also be noticed that the palmettes often have very deep pinholes. Arrow-marks have been put over each palmette, to show where these holes occur.

It is significant that all of the openwork grills published so far have pinholes in the palmettes. Various theories have been advanced about their purpose, one being that bronze rays went into these holes to protect the grill from birds. But any pattern of this kind would necessarily be symmetrical, and one would expect to find the pinholes in the same places and in the same number on each palmette. In the example in Philadelphia, however, the reverse is the truth; the holes occur sometimes in the centre of the petals, sometimes between them; sometimes there is but one hole, sometimes as many as five. Another interesting fact is that, instead of radiating with the palmettes, as would be expected, all the holes in these examples are vertical, and go straight down.

Let us now take up the different slabs in the order of their numbers in Figure 1.

I (upper left). Clay, pinkish. Preserved; centre and right palmettes, the right fragmentary; a portion of the base; pieces from the lower ends at right and left; and four other fragments, three of which fit together. In addition, the fragments 1, 2, and 4, on the right, are of the same material. 1 and 2 are centre palmettes, 4 is a right palmette. This shows that we really have to deal with at least three slabs made of this kind of clay; but for convenience we have combined all that could possibly go together.

II (upper right). Clay, cream-color, and coarse. Preserved;

all three palmettes, in fragments, and three good-sized pieces of the centre grill. In addition, fragment 3 at the right, a centre palmette, is of this fabric. We have, therefore, to deal with at least two slabs of this clay.

III (lower left). Clay, much as in II, but with the back covered by a fine slip of the same color, not found on the other clays. The openwork fragments have the edges of the cuts bevelled at the back. Preserved; fragments of the three palmettes; a portion of the base; a left end piece at the centre of the design; and five other fragments of the grill. In addition, fragment 5 at the right is of this clay. It is from a left palmette but does not join with the one already in place. We have, therefore, evidence of at least one other slab of the same clay.

IV (lower right). Clay, yellowish grey. Preserved; parts of the three palmettes, and a small fragment of the grill.

Fragment 6 is of a quality of clay utterly different from that encountered in any other piece, being a deep brick-red. As has been already noted, the red and black of the petals, instead of being applied as overcolor on a white ground, is laid directly on the clay. There is some doubt as to whether it belongs to the original grill, though apparently it is from the same mould as the left hand palmettes of the other slabs. It may, perhaps, be a restoration of later date, or even of modern workmanship, for nothing is too small for a forger.

We have reserved discussion of the problem of the pinholes, until we take up the difficult question of the position occupied by this grill on the building of which it was an architectural member. We believe that the previous restorations proposed for other such ornaments are structurally impossible. A grill, placed as the one from Falerii has been restored (Figs. 5 and 6), would be broken off by the first high wind that blew, for the support from below is too slight, and the ornament too thin, to stand rough treatment. As will be seen, it is thought of as fitting into a groove in the cyma, above the raking cornice. It is obvious that the Philadelphia grill could have gone in no such position; for the base is elaborately decorated with a maeander pattern, which was evidently meant to be seen; what, then, would be the point of decorating the base in such a manner, if it is to be concealed in a groove? It is, therefore evident that the example in the University Museum rested free of support from the sides, and was held to the member below it by the pins

or dowels that run through the pinholes shown in Section BB in Figure 1.

But it will be said, "This, too, is structurally impossible, for it has even less support than the other way." Yes, true; if we are to consider the grill as of single thickness. And now comes

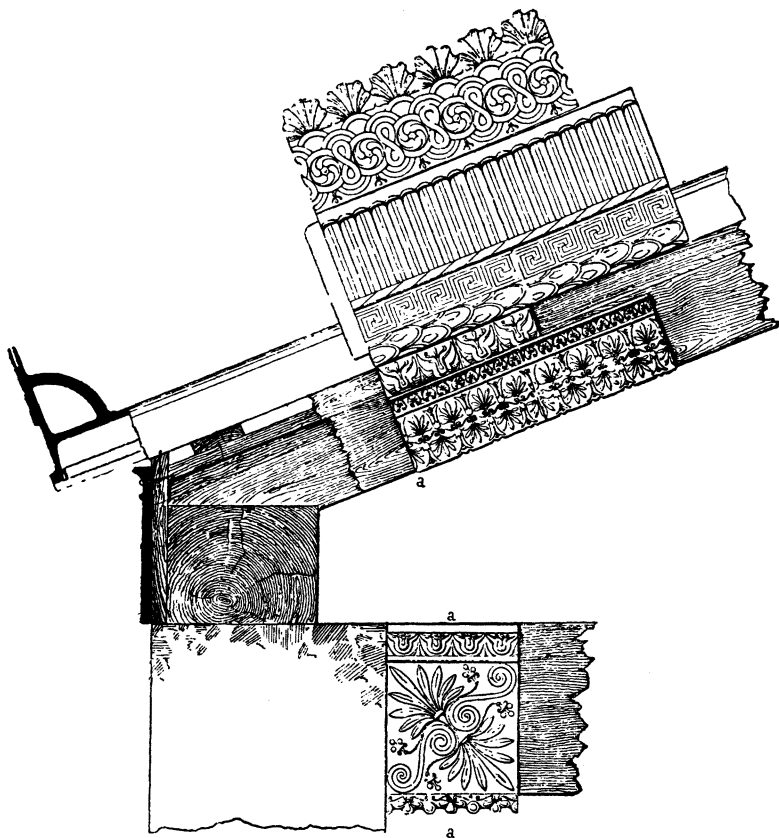


FIGURE 5.—GRILL FROM FALERII, RESTORED.

the solution of the problem offered by the pinholes in the palm-ettes. We believe that there were two thicknesses; that two slabs were set back to back, and held together by bronze staples that fitted into these pinholes. For the Etruscans did not know how to make a single slab of double thickness, with the design on both faces. When they wanted such a thing, they had to make two single ones, and set them against each other.

Furthermore, we believe that not only is this the correct solution of the problem for the grill in Philadelphia, but that the same thing is true of all the grills cited in previous publications.¹ If this be the case, it is evident that they cannot be thought of as fitting into a groove in the cyma on a raking cornice.

Having committed ourselves, then, to the theory that this grill was of double thickness, we were still at sea; for we had not as yet established its place on the building. Aesthetically there would be no need of a double grill above the raking cornice, for only one side of it would be visible.

Nor would it be aesthetically good to have a double grill on the sides, from antefix to antefix, another place suggested, and in either places a single thickness would be structurally impossible. We have, therefore, come to the conclusion that there is but one place where such a decoration would be at all appropriate: and that is along the ridge-pole. This is a new idea, and one which may excite adverse criticism; but there are representations on Roman revetments in the Museum of Fine Arts in Boston (Figs. 7 and 8), showing buildings with just such ornamentation². We think

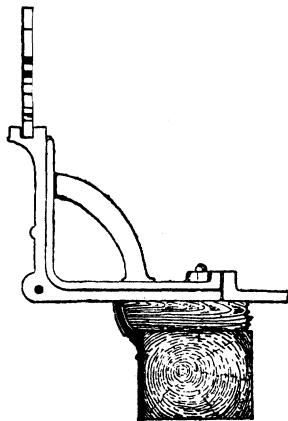


FIGURE 6.—SECTION OF
FIGURE 5.

that this position, with a grill of double thickness, will satisfy all structural and aesthetic requirements.³

¹ *I.e.*, those from Signia and Falerii, and those in Copenhagen and Berlin.

² Cf. Gusman, *L'Art Decoratif de Rome*, pl. 153.

³ As a further confirmation of this view, we may recall the fact that ornamentation of the ridge-pole with palmettes was practised by the Greeks, although, of course, it was not usual; but cf. the following buildings at Olympia: Treasury of the Sicyonians (palmettes in marble), Curtius and Adler, *Olympia*, "Tafelband" I, Pls. XXVII, XXVIII, and text, vol. I, pp. 40-44; Treasury of the Megarians (palmettes in marble), *ibid.*, I, pl. 36; II, Pls. XCIX, 4-7, and CXVI, 5; text, vol. I, pp. 50-53; Treasury of Gela (palmettes in terracotta) *ibid.*, I, pl. XLI; II, pls. XCIX, 1-3, and CXVI, 2; text, vol. I, pp. 53-56. Similar palmettes have frequently been shown in restorations of Greek temples, as at Aegina (Furtwängler) but the authority for this is questionable. Decorated ridges are not uncommon in reliefs and frescoes of Roman buildings, as is witnessed by the examples illustrated above.

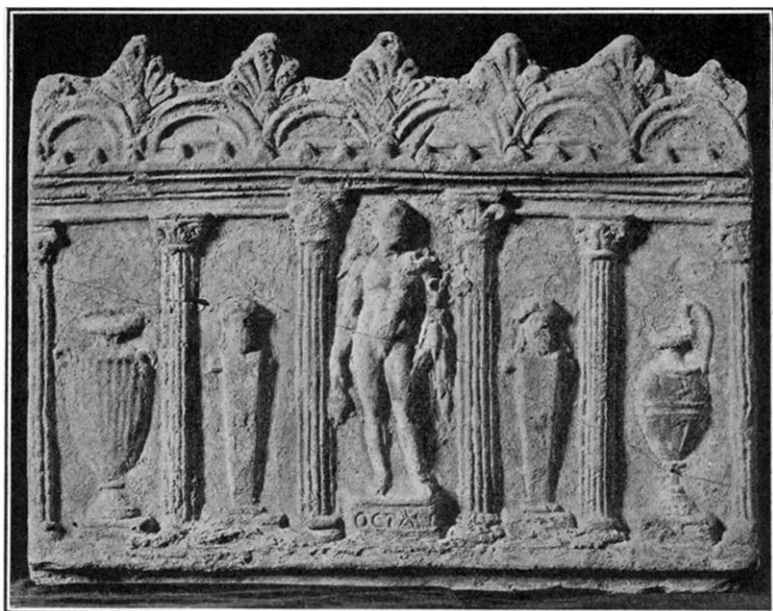


FIGURE 7.—TERRACOTTA REVETMENT: BOSTON.

Evidence that similarly decorated roof-ridges were common to later Roman architecture is supplied by the fact that numerous examples of ridge-crestings occur on buildings of the eleventh and twelfth centuries in Provence and Auvergne. These crestings are made of slabs of stone, pierced to form patterns of interlaced circles and semi-circles. It is very significant that they are found only in Auvergne, where the tradition of Roman architecture is especially strong, and in Provence, where Roman detail is so literally copied as to appear almost classic.¹

Now comes the question as to how to date this architectural ornament. We believe that the specimen in the University Museum is perhaps the earliest example of such an architectural member existing today. The one from Signia is the only one

¹ Publications of buildings where these crestings occur will be found in the following places; for buildings in Provence, Revoil, *Architecture Romane*, vol. I, pls. VII, VIII, LIII, LXV; vol. II, pls. XXVI, LI; for Auvergne, Baudet and Perrault-Dabot, *Monuments Historiques*, vol. IV, pls. VIII, IX, X, XII, XIII; Gailhabaud, *Monuments Anciens et Modernes*, vol. II, pls. XLVIII, XLIX.



FIGURE 8.—TERRACOTTA REVETMENT: BOSTON.

of those we have cited that can possibly antedate it. We are inclined to think, however, that these two grills are of about the same period. As has been said earlier, there is no sure way of dating these architectural terra-cottas, and one man's guess is just as good as another's. Our conclusion, however, is that the example in Philadelphia should be put at the end of the fifth or beginning of the fourth century B.C. The other three come in the following order; the one in Berlin, perhaps in the middle of the fourth century; and those from Falerii and in Copenhagen, at the end of the fourth or beginning of the third century. The grill in the University Museum is simpler in design than any of these others, save possibly that from Signia; and of this there is so little preserved that we cannot tell much about the pattern. Leaving this out of consideration, let us take up the points of difference between the specimen in Philadelphia and the later ones.

In the example in the University Museum, the "wheels" have four spokes; in the others, they have but three. In the same example, the "wheels" and the "figure-8" patterns are kept quite separate; in the others they run into each other, in a way that gives a very unpleasant sensation of crowding. This

attempt to crowd the greatest possible number of details into the least amount of space is a late sign. In the example in Philadelphia, the palmettes are true palmettes; in Berlin, the bad reproduction¹ makes it impossible to tell much about them; while in Copenhagen, and in the example from Falerii, they are degraded and conventionalized in a way that can only be late. All this evidence shows that the specimen in the University Museum of Philadelphia antedates all the others, except possibly the one from Signia; and not only does it antedate them, but it is of far greater artistic merit than any of them.²

STEPHEN BLEECKER LUCE, JR.

LEICESTER BODINE HOLLAND.

UNIVERSITY OF PENNSYLVANIA,
PHILADELPHIA, PA.

¹ See p. 3, note 2.

² The excellent article, 'Architectural Terra-cottas from Two Temples at Falerii Veteres,' by Miss Mary Taylor and Mr. H. C. Bradshaw, in *B.S.R.* VIII, 1916, pp. 1-34, pls. I, II, appeared too late for us to use in preparing this paper. It republishes with most beautiful drawings the temple at Falerii to which we have referred in this article. The grill is mentioned, as a 'cresting à jour,' on p. 28, and drawn on pl. II. The authors adhere to the restoration suggested in *Not. Scav.*, to which we cannot agree; although we realize that they have had the great advantage of working with the fragments themselves, which we have been able to do only in the case of the Philadelphia specimens. In spite of the investigations of Miss Taylor and Mr. Bradshaw, we still maintain, therefore, that the only structurally possible place for these grills is along the ridge-pole.